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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WANG, RONGFA PHILIP

ART UNIT

PAPER NUMBER

2191

NOTIFICATION DATE

DELIVERY MODE

07/08/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/674,566	Applicant(s) REIMER ET AL.	
	Examiner PHILIP WANG	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-41 is/are rejected.
- 7) ☒ Claim(s) 31,32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to RCE filed on 4/15/2008.
2. Per Applicant's request, claims 1-29 have been canceled; claims 30-41 are new.
3. The 35 USC §101 rejections of claim 16-23 have been withdrawn in view of the cancellation of the claims.
4. Claims 30-41 remain pending.

Claim Objections

5. Claims 31, and 32 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 31 and 32 do not appear to include limitations that further define the invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 30-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended claims 30-41 include the limitation of "node creation and

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destruction information" Specification [0029] discloses object creation information. However, the examiner can not find support in the specification disclosing node destruction information.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 30-41 recite the limitation "relationships within the nodes" in "generating an object containment hierarchy of relationships within the codes". According to the Applicant's specification, for example, [0031], it appears the relationships appear to be more appropriately described by using "between" instead of "within".

8. Claims 30-41 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. Claims 30-41 recite the limitation of "loading a computer program....; analyzing nodes within the computer program..." The language as presented can be interpreted as analyzing the computer program syntactically. Specification [0008] discloses in detail regarding the condition for such analyzing that does not appear to be shown in the claim language. Further, claims 30-41 recite the limitation of "annotating the object containment hierarchy with the temporal flow hierarchy to form an annotated object containment hierarchy". This portion of the claim limitation does not include details of what information from the temporal flow hierarchy is used for annotating the object containment hierarchy. For example, in specification [0029], specifics of how this annotation is performed are described. This portion of the claim language states only annotating a hierarchy with another hierarchy. It is not clear what portion of a first hierarchy is used to annotate a second hierarchy. It is also suggested to

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include what portion of the first hierarchy is being annotated with information from the second hierarchy.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 30-37, and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (herein AAPA) in view of Dori (USPTN 7,099,809).

As per claim 30,

AAPA discloses

loading a computer program onto an information processing system; analyzing nodes within the computer program, said analyzing comprising analyzing node transition from source nodes to destination nodes; generating an object containment hierarchy of relationships within the nodes of the computer program using a program analysis tool, wherein the object containment hierarchy comprises a description of how the nodes refer to other nodes; generating a temporal flow hierarchy using the program analysis tool (specification page 8, "...well known ways to present either temporal flow or containment information..."),

AAPA does not specifically

disclose

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wherein the temporal flow hierarchy comprises control flow and node creation and destruction information, linking events to the node transition; annotating the object containment hierarchy with the temporal flow hierarchy to form an annotated object containment hierarchy; and presenting at least a portion of the annotated object containment hierarchy in response to a user request.

However, Dori discloses

wherein the temporal flow hierarchy comprises control flow and node creation and destruction information, linking events to the node transition; annotating the object containment hierarchy with the temporal flow hierarchy to form an annotated object containment hierarchy; and presenting at least a portion of the annotated object containment hierarchy in response to a user request (c2: 33-40, "The computer program includes instructions for causing a processor to receive a textual description of a model, and, based on the received description, generate a model diagram composed of different graphic elements that can include a first graphic element representing a process and a second graphic element representing an object."; claim 35. The method of claim 22, further comprising using the received input to provide an animated simulation of a modeled system, wherein dynamics of said modeled system are shown by at least animated flow of control, process execution, object creation, object destruction, and object state modification.) .

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dori into the teachings of AAPA to include

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the limitation discloses by Dori. The modification would be obvious to one of ordinary skill in the art to want to represent process and objects at the same time (Dori, c2: 33-40).

As per claim 31, the rejection of claim 30 is incorporated;

see reason of rejection in claim 30.

As per claim 32, the rejection of claim 30 is incorporated;

see reason of rejection in claim 30.

As per claim 33, the rejection of claim 30 is incorporated;

AAPA discloses

wherein the program analysis tool comprises a tool selected from a group consisting of:
a debugger, a runtime tracer, a profiler, a quality analyzer, and a static analyzer([0028]).

As per claim 34, the rejection of claim 33 is incorporated;

Dori discloses

wherein a visualization tool is integrated as part of the program analysis tool(c2:
5"...provide a visual simulation...").

As per claim 35, the rejection of claim 33 is incorporated;

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AAPA discloses

wherein a visualization tool is configured to receive data relating to the computer program from the program analysis tool([0028]).

As per claim 36, the rejection of claim 30 is incorporated;

Dori discloses

wherein the presenting step comprises displaying at least one selected from a group consisting of: a control flow graph, an invocation graph, an object creation graph, an object reference graph, and a data dependence graph(c11: 5-14, "...present the selected...").

As per claim 37, the rejection of claim 30 is incorporated;

Dori disclose

presenting the object containment hierarchy in response to the user request;
receiving a selection of a node from the user; and presenting at least a portion of the annotated object containment hierarchy, displaying annotations from a perspective of the selected node, responsive to the user selection(c11: "...looking in greater detail at some portion of the system.").

As per claim 40, the rejection of claim 37 is incorporated;

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Dori discloses

wherein the receiving step comprises receiving a click on an icon representing the node(c9: 26-34, "...clicking...on the object...").

As per claim 41, the rejection of claim 37 is incorporated;

Dori discloses

wherein the receiving step comprises receiving textual input from the user(c2:23-32, "...receive input...").

10. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (herein AAPA) in view of Dori (USPTN 7,099,809) and further in view of Hunsinger et al. (USPGN 20020165997)

As per claim 38, the rejection of claim 37 is incorporated;

AAPA/Dori do not specifically disclose

wherein the second presenting step comprises presenting the annotations in italics.

However, Hunsinger et al. disclose

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wherein the second presenting step comprises presenting the annotations in italics([0047], "...uses italics to show information provided through the annotation process...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Hunsinger et al. into the teachings of AAPA/Dori to include the limitation discloses by Hunsinger et al. The modification would be obvious to one of ordinary skill in the art to want to highlight information using italics.

11. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (herein AAPA) in view of Dori (USPTN 7,099,809) and further in view of Ohta et al. (USPGN 20030120640).

As per claim 39, the rejection of claim 37 is incorporated;

AAPA/Dori do not specifically disclose

wherein the second presenting step comprises presenting the annotations in brackets.

However, Ohta et al. disclose

wherein the second presenting step comprises presenting the annotations in brackets([0115], "...Annotation is enclosed by brackets").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ohta et al. into the teachings of AAPA/Dori to include the limitation discloses by Ohta et al. The modification would be obvious to one of ordinary skill in the art to want to highlight information using brackets.

Response to Arguments

12. Applicant's arguments with respect to claims 30-41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00 - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Wei Zhen/

Supervisory Patent Examiner, Art Unit 2191

